/416 cont./
281 durably. They cut the edges approximately straight and lay them
294 side by side. Near the edges of the two pieces they make a small hole by pricking the leather with an awl or a pointed bone. Into this hole they thread a tendon fiber, uśwúmi, holding it with thumb and index finger and licking it to make it pointed. Then another little hole is bored, and the thread is drawn from one hole to the other over the free edges in a spiral. Finally, they pound the two edges, which are not quite flat, with a round stone to make them flat and less hard so that they will not rub unpleasantly. Such work is very coarse and uneven, for they lack convenient tools. They fasten strands of leather and straps together or tie them to other things simply by knotting them.

283 The fibers of tendon which we have just mentioned, known
237 as uśwúmi or ūnána, are often used in sewing and joining pieces of leather. Strands of guanaco tendon are separated into fibers, but
[136] a person who does not have these uses the tendon fibers of otter or beaver (Myocastor coipus) tails. The beaver is rare here, however. After they have skinned the animal, they cut off the tail at the root. It is dried for some time, and the individual vertebrae are broken off without tearing the tendons. The last two or three vertebrae are left together. The tendons which have been loosened by this process are separated with the fingernails until they become thin enough to be used for sewing. They then hang like a tuft on the smallest vertebrae of the tail and can be torn off with a sharp tug.

C. Cleanliness and Body Ornamentation

515
356 Every stranger is repulsed by the unclean, unkempt appearance of the Yamana (91). It is disgusting to see these human

91. Among the opinions of former travelers I shall cite only what Snow (a) :I, 345 has written: "They appeared to have no idea of cleanliness, for a dirtier set of individuals I have rarely met with; and I imagine they never attempt to wash themselves" /cited in English/.

/434 cont./

301 wound around two or three times, in other words, several meters long. Thicker bunches of tendon are held together by a short thread wound around them crosswise at certain intervals. This neck ornament is called hupuxkémak. "These braids are a kind of necklace for only the women; they are arranged in a number of circles, held at a single or at several points /435/ by means of a little strand of hair" /translated from French/ (Hyades [q] :349) (116). Although each of these pieces is in

116. He also says (q):299 about these: "Another type of necklace is made simply by several twists of braid worn at the neck; a glass bead from the French Mission was sometimes hung on this necklace" /translated from French/.

itself greasy, they brush it with fish oil alone or with a mixture [237] of fish oil and red pigment, so that the short fibers do not stick out unattractively.

301 The strings of guanaco tendons separated into fine fibers 237 are generally called amépa uíwúmi; those of whale bone, used [213] alike for sewing and braiding, are called wápisa uíwúmi. On these simple braided tendons the Indians sometimes string short pieces, fairly uniform in length and shape, of the hollow cylindrical bones of a bird, usually the cormorant. More rarely they use the well-known calcareous formations of the tube worm, which they cut into small pieces from 30 to 40 millimeters in length. The smaller and more regular they are, the more they are prized. They sometimes also insert two or four red beaks of the oyster catcher (Haematopus ater) at suitable intervals, and for some time [177] now, even coins, glass beads, and other European baubles (117).

117. Wieghardt:23 writes: "The necklace worn in two or three twists around the neck is at times adorned by a beak of the oyster bird [Haematopus ater], animal teeth, or little shells" /translated from Spanish/.

/436 cont./

301
[437] which occasionally reached the neighboring Haus /Haush/ and Halakwulup through barter, was repeatedly mentioned by early travelers. One often sees it in the etnographic collections of European and American museums. See Bove (c):126, Colini:722, Dabbene (b): 176, Hyades (q):300, 348, Lothrop (b):125, Wieghardt: 23, and others.

[237] Another necklace more highly prized than this is a braided cord of tendon on which short, small pieces of the dried windpipe of the /Fig. 23 appear: here/ wild swan (Cygnus melanocoryphus) are very loosely strung. J. L. Myres:97 is right when he says that this "type of necklace is rare and much prized /cited in English/, for the swan seldom appears there in the south, and it is extremely difficult to obtain.

301 Finally, another necklace is described by Hyades (q):299,
237 which I did not see. "Plaited necklace, Oupakh' ouana; this
● 283 type of necklace is plaited with fibers of the intestines of young seals, Aouia ama; in the center, Itakoun, there is a fine braid, Açina, made of the sinew of a whale, which /Fig. 24 appears here/ also forms the double braid at the ends of the necklace; the fastening, Yamacéta, of the necklace is a braid made of whale tendon. It is worn only by women: Kipa tapan makus." /translated from French/.

301 The necklaces mentioned above, irrespective of type and construction, are procured by people of either sex and all ages. "The men wear these necklaces also, as well as the women and children" /translated from French/, Hyades (q):349 confirms. Older men do not decorate themselves as much with them, but /437/ older women do, and most of all the younger people. They are almost wholly a plaything for children. A woman will adorn her baby with a necklace chiefly out of a feeling of maternal happiness. The women and girls make all these types of ornament for themselves and for their male relatives, since this is [462] work for women's hands. The personal need for adornment and the vanity of each individual determine how often and how long one decorates himself with this or that piece. Unimpeded

/444 cont./
396 out the earth in the shape of the planned canoe. Then each of the two poles, keici, one after the other, is sewn to the straight edge of the side sheet of bark, as the board. Their front ends later form the extreme point of the bow which rarely extends two to three centimeters above the bark.

396 For the sewing, one needs strips about one millimeter thick
● 283 and three millimeters wide from the most recent layer under the
[824] bark of young trunks of Nothofagus antarctica. They are extremely flexible and so tough that they neither peel off in strands nor break, even when they are dried out. If a person can get the more suitable strips of whalebone, he chooses them, but otherwise he must /445/ resort to using the former which he carefully prepares (130). Near the upper edge of the sheet of bark he bores

130. Hyades (q):351 describes how they are prepared: "One divides the fibers of whalebone or of the layer under the bark into strips of equal length and thickness, polished on the edges by being scraped with broken shells" /translated from French/. They are kept under water so as not to dry out or warp prematurely.

a small hole with a pointed bone awl and sticks the strip of wood fiber, ũ'i, through it, draws it over the little pole, pulls it tight and continues in spirals about 13 centimeters apart until its entire length is fastened to the edge of the bark. The latter is safely protected by each of the two poles.

396 Before the long center piece of bark is fastened to the lower edges of the two side sections, approximately eight cross-
[824] bars are fastened to the top. For these witega, one chooses branches as thick as a thumb from the ñakuŕ (Maytenus magellanica), whose wood is very tough and hard. He scrapes off the bark and at either end carves a stub-like button. Around the somewhat thinner neck just in front of this button he winds the ũ'i thread, and with this he ties each end of the crossbar to the upper edge of the sheet of bark. The deep tapering of the crossbars just short of their ends serves as a collar for the ũ'i strip, preventing it from slipping in either direction. The center crossbar is, of course, the

/446 cont./

396 are put into place on bow and stern. Sometimes only the one on the bow is deemed sufficient, if the excellence of the large bark pieces permits the one on the stern to be omitted. I was told that the construction of the canoe is sounder if the three large pieces of bark do not all taper to fine points at either end, but are cut off straight. The short triangular end pieces that are sewed to the cut surface prevent any tearing or splitting of the keel strip because they fit loosely. These two ilkinix are also sewed on with [illegible] threads. Moreover, a thread made of braided mákpi (Marsippospermum grandiflorum) is wound tight around the extreme tip, its free end knotted on the last or the next-to-the-last small crombar. This prevents the fine tip from twisting outward which it tends to do because it frequently gets damp and then dries again.

[583 824]

The middle third of the edges on both sides of the canoe is most subject to damage, for this is where one climbs in and out and also where most of the things are loaded. Hence, for greater safety, they make a separate gunwale of pieces of bark from a trunk of Maytenus magellanica as thick as an arm. They peel off the bark and split it into equal halves; these are immediately placed on the edges of the canoe, each between two crombars. Each half bends to form a half cylinder and is automatically clamped into place; it needs no other fastening. This bark facing, téteke, has another advantage. It extends along the section in which the woman sits to row and thus protects her arms from injury. In rowing and steering she often rests them on the gunwale.

[824]

The outer construction of the canoe is now finished. It needs only a few additions to give it support and firmness. For this purpose, slender wooden ribs as thick as a finger are used, namely, branches of Drimys winteri or of a Nothofagus, split down the middle. Both ends are cut to a short point, and the individual ribs bent into a half circle. They are arranged according to their length and pressed into the belly of the canoe so that they lie tight against the entire inner wall and are clamped under the gunwale on either side. These wooden ribs, tmekila, are close to each other; about 50 are used altogether. Before they are finally clamped into place, the small spaces and holes between them and the lower half of the canoe wall are stuffed with moss, algae, and grasses, for the thin-walled construction requires a great deal of caulking. The vegetable matter used for this purpose is known

[824]

/480 cont./

501 415 center of the longitudinal seam. Such a vessel does not have to be made watertight; small amounts can easily be scooped out if one uses it often and quickly. The girls /411/ even find this to be fun. The size and diameter of this scoop (Fig. 20) are a matter of chance. Some are 12 centimeters, others 22 centimeters high, and most of them fall between these two sizes. The leather ones are more durable than those commonly used made from the bark of Drimys winteri or Maytenus magellanica. The latter, however, are easier to hold (140). Several of

Fig. 20. Scoop Made of Drimys Bark. One-half natural size.

140. Hyades (4):207 gives several details about these scoops. To speak of "shovels made of tree-bark," as Hove (4):127 does, is not correct. See Lothrop (4):147.

these scoops lie about in every canoe. /Fig. 20 appears here./

501 213 The last item of the accessories that we must mention, which, however, is sometimes lacking, is the rope of such value that Hyades (4):414 calls "plait of rushes" /translated from French/. It is a simple braid of three

Fig. 21. Rope Made of Marsippospermum. One-half natural size.

strands and is at least 180 centimeters long (Fig. 21). There is a knot at either end to keep it from becoming unbraided. This rope

/421 cont./

514 283 is always left in the canoe, either rolled up in a ball or wound into a few coils. It is used where many banks make it impossible to draw the vessel onto land. One end is knotted to the first or second crossbar, while the other is wound around a stone or a tree trunk. This rope, which is not very strong, is used to fasten the canoe only in very quiet waters to prevent the boat's being carried off by the ebb and flow of the tide. Because of its lightness, it is much more suitable for this purpose than a heavier leather thing would be (141).

> 141. In his time, Snow (s):ill, 16 called attention to it. "The ropes they had to fasten their canoes were made of grass rudely plaited" /tried in English/.

501 962 The few items listed here, oar, hearth, scoop, and rope are necessary adjuncts or accessories of the vessel. /Fig. 31 appears here./ The woman has charge of them also, and she sees to their replacements so that she will not at some time be seriously embarrassed or endangered.

/422/ δ. Its Efficiency

525 Their restless, wandering life forces the Yamana to carry with them wherever they go all their material possessions, without exception. These do not necessarily belong to the canoe, but no one can part with them. They are distributed in such a way that the man keeps his weapons in the bow, and the woman has all the other implements and little baskets, skins, and pieces of meat in the stern. The children occupy the center section. Except for the insignificant trifles which they hang on their bodies, they do not possess anything. The canoe as such is extremely light and is, therefore, not suitable for transporting loads. Although it is hard to say definitely how much the articles necessary to the adults weigh, it is obvious that it cannot be much. At most, a large sea lion that a man has killed is loaded on.

The number of people that a given canoe can accommodate depends on their weight and the existing weather conditions. They

/465 cont./

48 171 find it on the specimens in the Göttingen Museum. This point may seem trivial, but actually the early Yamana were not as exact in making a bow stave as the Selk'nam. That is why they never applied the fine decorated edge upon which the Selk'nam laid great store (Vol. I, 253). It has been proved that the inhabitants of Isla Grande gave many a bow to their neighboring canoeists. However, since the old bow staves described here lack the even and delicately ribbed surface, they are almost certainly recognizable as a genuine product of the Yamana. The latter have actually altered nothing in the form and shape of their bow staves for the past three centuries (167).

167. Hyades (4):261 confirms "that the bow and arrow of the present does not seem to have varied from that of the first European travelers in Fuegia" /translated from French/. In his works (4):31 and (4):Plate XXXI, he illustrates a bow that Bougainville picked up in Puerto Gallant on the Strait of Magellan in January, 1768. There is no question that this specimen comes from the Halakwulup. Since, as Hyades maintains, it "does not differ in any respect from the present bow" /translated from French/ of the Yamana, his words substantiate what I said in the beginning about the widespread uniformity of the bows of all Fuegian tribes.

48 203 For the bowstring, the people in the region of the Selk'nam and Haus without exception use the thick tendon cords from the legs of guanacos. The eastern Yamana do likewise; the other groups choose for this also thick bundles of tendons of the pinniped; the westernmost Yamana, probably in imitation of the Halakwulup, even use the hide of the sea lion in a strip three millimeters wide (168). On the two bows which James Cook [177]

168. Hyades (4):258 inaccurately says that "the string is a sealskin thong or a cord of a whale sinew" /translated from French/; the tendon fibers of large seals are used much more often.

283 411 /466/ brought back the bowstrings are now missing. Of the two in the Peabody Museum Lothrop (b):156 says that their "bowstrings are of guanaco-sinew" /cited in English/ (169). The latter,

> 169. In a few older reports they are erroneously said to be "gut."

known as sáli, are attached exactly as they are on the bow of the Selk'nam, namely, at one end by means of a running knot and at the other by being wound around it several times (see Fig. 31 in Vol. I, 231). A strip of leather as a bowstring is obviously much less elastic.

β. The Arrow

411 The navigators of earlier times repeatedly saw the arrow in the hands of these Fuegians, but instead of describing it in detail, most of them were content to mention it briefly. Weddell noted few details. [171] The arrow of the Yamana also resembles that of the Selk'nam in every respect; the latter is in general somewhat longer. Lothrop (b):155 calls it "short, clumsy, and untapered -- very crude indeed compared with Ona workmanship" /cited in English/. As far as I know, there is not an arrow preserved anywhere from olden times, and the available descriptions from the last decades are more or less inadequate. For whatever I have been able to discover about this at one time significant weapon, I am indebted chiefly to old Whaits, who, as a young man, made a few samples of them. Personally I did not succeed in seeing an arrow made by the hand of a Yamana.

Here, too, as on Isla Grande, they choose the small stems [824] of Berberis ilicifolia, sometimes even the branches of Maytenus 411 magellanica for the arrow shaft. Hence it is also called ʒiyakuʒ, 322 a name for the latter tree. The stick, still green, is given its final shape by constant scraping with a sharp-edged mussel shell. The middle third bulges slightly in contrast to the two ends. The high polish and final smoothing of the surface of the shaft is obtained by a gentle rubbing with pumice. Before that the man repeatedly straightens it by holding it between his teeth and

/485 cont./

223 226 above, they also use several implements which we shall briefly characterize here and describe in greater detail below. These implements have been brought under one heading in this section. They help the men and women to obtain the smaller representatives of Fuegian fauna, namely, birds and the so-called lower animals, such as mussels and crabs.

a. The Snare-line

223 This is a construction that is used for inconspicuous mass capture. The Yamana call it ufka; I believe the most suitable designation is large snare-line. It could also be called "snare-trap." It is used more often by the Halakwulup than by our Fuegians. Hyades (q):359 correctly reminds us that it was observed by Bougainville in the year 1769 on the shores of the Strait of Magellan.

223 283 The foundation, so to speak, of this large snare-line is a thick, braided cord of long guanaco sinews. Since few /486/ people can obtain this, they content themselves with whale sinews and make a firm braid with three strong strands. This is saturated with fat and repeatedly greased, for it often lies on the damp earth for a long time and must be protected from rotting.

223 284 On the long cord at intervals of about 60 centimeters, there are tied as many knotted loops, known as ker,ᵊčf, as the length of cord will permit. Each of them consists of a single strip of whalebone about four millimeters wide, the edges of which must not fray since this would interfere with the free movement of the small loop-knot at the upper end. The other end, after being drawn through the loop, terminates in a simple knot and is fastened to the long cord. All the knotted loops are placed on the same side of the cord. Each one, when it is entirely loose, has a diameter of nearly 20 centimeters.

223 Actually, therefore, the large snare-line ufka, is, following Hyades (q):304, a "game of snares" /translated from French/ (Fig. 59). Martial:195 calls it "a noose" /translated from French, lacet/, which he describes as "a rope of seal tendons on which

/490 cont./

227 Two types of fishline are used, and they differ from one an-
283 other only in the actual line. One is nothing more nor less than
[824] a small, pencil-thick stem of the large brown alga (Macrocystis pyrifera) from which, with the fingernail, the branches are removed so close to the stalk that it seems quite smooth (Fig. 63). After each use it is rolled up; hence it dries very slowly and does not readily become brittle. When it is needed, 20 minutes in the water will suffice to soften it up completely and make it flexible once more.

The other fishline is braided out of three thin filaments of sinew. Like the one mentioned first, it is eight and more meters long (Fig. 64). To make it last longer, it, too, is rolled up, but into a tight ball, after each use (199). The latter is incom-

199. Bridges (MM:III, 115; 1869) briefly describes both types. Hyades (g):38 repeated: "The lines are made partly out of dried seaweed [Macrocystis pyrifera], partly out of seal tendons, and are lowered with a stone tied to them." See Krickeberg: 320 and Lovisato (b):142.

parably more durable and proves to be much more trustworthy when it is hauled in.

227 Both lines terminate in a loop with a running knot made out
284 of a quill. When it is opened up, it measures about 12 centimeters. Since the actual line ends in a small knot, the upper end of the quill is joined on in front of the knot. Along its smooth surface the running loop moves without any friction. As bait it holds a small piece of seal meat or a small mussel.

227 Since the bait must sometimes be sunk to considerable depths, a sinker is indispensable. The natives use any stone with flat sides and irregular edges. It is about three centimeters high. The line is wound around it, about eight centimeters above the loop. In the central Yamana regions the natives sometimes select the round black stone tesi, but few women have any of them handy.

226 Every Indian woman is extraordinarily skillful in fishing. Since she does not use an actual fish hook, she waits until the fish has swallowed the bait and only then very gently pulls up the

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/501 cont./
several of these small bags and described them in detail, as did Lothrop (b): 133. Compare Spegazzini (a): 162 and Colini:238.

the freshly removed bird skin inside out so that the feathered side is on the inside.

Dried pieces of gut and the dried stomach of smaller seals are also used as small bags. They are popular as containers for pigments and liquid blubber, for they are impermeable. These things are known as yā̀i (Fig. 20).

415 The above-mentioned articles of leather and skin are neither very strong nor particularly durable. Even more fragile and delicate are the buckets and smaller vessels made of bark. Such containers are not suitable for the type of life led by the Selk'nam; however, they are serviceable for the Yamana because they can be easily kept in the canoe and taken along. There is a larger type, kā̀la, x̣ā́la, and a smaller, tū̀ku. BD:201, 469 also distinguishes between kā̀la, "a bark bucket," and tū̀kū, "a bark bailer" /cited in English/. The complete name for the large pail is ai̯yū̆́su x̣ā́la in the western dialect, and ā́ta, x̣ā́la in the eastern dialect.

415 322 When one wants to make a pail, he peels a ring out of the bark of an evergreen beech with the usual bone tools. The outer rind and the inner dry bark fibers are scraped off; then all the edges are cut very evenly. Before the piece of bark curls up by drying its longitudinal edges are sewed together, carefully well overlapped. A round bottom of the same bark is set in and secured by means of a seam that runs all the way around. To prevent the upper edge from tearing a flexible strip of the soft wood layer of [824] Drimys winteri is placed around it and sewed on. Whalebone strips [283] as well as thin bundles of bast-fiber are used to sew it. A short leather strap or a braided rush cord is knotted above the opening as a handle. This makes it easy to handle the bucket which is up to 30 centimeters high and has a diameter of 13 centimeters (Fig. 48). For /502/ smaller vessels they take the bark of [824] Drimys winteri and even of Maytenus magellanica, both of which have less tendency to curl because their bark is thicker than that of beeches. For these they do no more than make a longitudinal seam and set in a

/546 cont./

226 Although in general fish adds a welcome change to the monotonous diet of the Indian, it is by no means of real significance for his nourishment. Referring to this, Hyades (h):14 has very much exaggerated. For example, no one touches the representatives of the order Harpagifer, tā́pun, tḗppun, although they would be very easy to catch. They are about as long as one's hand and have a broad head. They remain in the residual pools and cling to wet stones when the tide recedes.

[462] It is exclusively the woman's occupation and task to fish with a line for certain smaller salt-water species. A man would never do this. The women use two different kinds of lines (see Hyades [q]:303). They fish with a line throughout the year, but only when the sea is calm (279). The woman makes the very simple

227 283

279. To say that a woman fishes only "three months," that is, in summer with its long days, as Hyades does (q): 370, is unjustified.

[824] line (Fig. 63) herself. She chooses a long pencil thick stem of the easily obtainable large brown alga (Macrocystis pyrifera) and removes the few branches by snipping them off lightly with her fingernail. In this way she produces an almost smooth thread, tuína, tḗkēpuwa. Since it is elastic, it can be easily wound into a loose coil. In the shade it dries only partially so that it remains slightly damp. Any dull-colored, flattened, irregular stone about the size of a pocket watch will do as a sinker (280). The line is

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280. In an emergency the woman will even use a longish, stone spear-point as a sinker. This may have led some less careful observers to conclude that the Yamana use actual fish hooks such as are employed elsewhere.

wound around it and knotted so that the free end hangs down a few centimeters /547/ below it. This end is finished off with a small knot, into which is fastened a fiber from the quill of a stout bird feather, about ten centimeters long and four millimeters wide. The quill tapers somewhat /Fig. 63 appears here/ at the bottom and ends in a running knot that holds the bait. The latter consists

/547 cont./

227 of bits of meat, the size of a cherry, from a small mussel, or a tiny bit of seal meat, or whatever else the woman happens to have. As soon as the long thread of alga is dipped into the water it is quickly impregnated with moisture. In spite of its extreme flexibility, it is strong enough. As a substitute they also choose a fishline, apúr tuarâna, made out of several meters of braided, tough sinews, tâfim (tâbim) (Fig. 64). The sinews, ûswûmi, of the guanaco are well adapted to this because they are long, fine, and durable; if they are not available, sinews of whale, seal, or otter are used. Even heavy fish cannot tear this line. Sometimes the woman flattens the sides of the sinker (čéči, also tôšisôši according to BD:399, "a sink [round stone or lead] for fish lines" /cited in English/, rounds the edge, and cuts a shallow notch into it for the thread (281). She goes to the trouble of specially shaping the stone only when the fishline is of braided sinews, which is stronger than a line made of an alga stem. In the central part of Beagle Channel the people even use a spherical black stone about four centimeters in diameter, which is provided with a shallow groove for the fishline. According to the old myth about Sínulu-watauinéiwa, this tési, tésix, was said to have been introduced by a woman in ancient times.

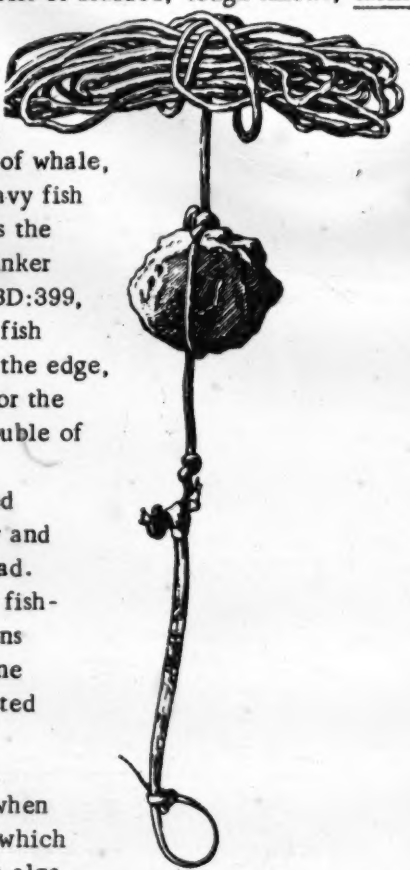

Fig. 63. Fishline Made from an Alga Stem. Three-quarters natural size.

281. Hyades (h):19 illustrated a stone fashioned in this way and comparable to a sounding lead. Next to it he shows a second fishline "of braided whale tendons with a polished, grooved stone serving as a weight" /translated from French/.

/549 cont./

226 same time. They have previously agreed on their plan in accordance with the weather and their own moods. Although they are close together in their canoes, they avoid all conversation. Within a short time, especially if they are favored by the weather, every woman has roughly a few dozen fish (286).

286. Fishing with the line is sometimes very profitable, as Hyades (h):15 confirms.

Several species of fish with tasty meat take the bait, most frequently tápun (Notothenia cornucula), súna (Notothenia macrocephalus), imakára (Genipterus chilensis), čátax (Choenichthys esox), lasár (Latilus aff.), and others. In general, these species can be pulled up with the fishline made of kelp, which seldom breaks even when the fish is moderately large (287). In places where

[227 283]

287. Hyades (q):371 also confirms: "The common lines of seaweed rarely break, and they are adequate to take fish of medium size, up to half a kilogram" /translated from French/.

larger fish bite, the Indian woman chooses a fishline of woven sinew fibers (Fig. 64) so as not to lose her catch, for sinew fibers are strong and resistant as well as much more durable.

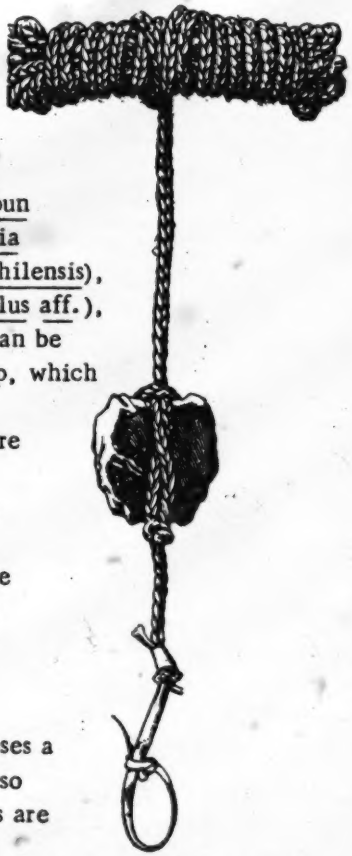

Fig. 64. Fishline Made of Sinew Cord. Three-quarters natural size.

The Yamana women set out in their canoes at any hour of the day, if the surface of the water is smooth and the weather promises success. They even venture out on the water during the brief summer nights which are rather light there, but never in the dead of night, however, even with bright moonlight (288). They like to go

288. Many observers described this type

/840 cont./

X 881 625 302 a red stripe the width of a finger from each nostril to the opening of the ear. They are never without the proper hapaxḗl, but they are not entitled to the headdress of white feathers which distinguishes the winefkḗ̆a. Neither he nor his assistants are constantly painted this way, but they renew the painting frequently.

X 881 625 These assistants do not have a special name. Their activity depends entirely on the guard, and they take their instructions from him. This describes their service. Above all they help to capture the candidates at the beginning of the ceremony, and they also assist if an outsider has caused a disturbance or has come up too close and must be apprehended. One or another of these assistants accompanies the uš̆wā́ala to work outside the Great Hut because the winefkḗ̆a himself should never be too far away from it.

X 881 625 283 When the guard and his assistants fetch one candidate after the other to the Great Hut, as we have just indicated, they use a long strip of leather which is about three centimeters wide and 12 to 15 meters long. This ū́keš̆a is painted white and has red horizontal strips 20 to 30 centimeters apart. It is knotted at the end and made into a noose. This leather strap is fastened loosely lengthwise, not rolled up, to the framework inside the Great Hut so that it can be taken down ready for use at any moment. It is always in the same place; hence it is convenient and /841/ certain to be at hand for the men, who can instantly form up in such a way that the first in the row, noose in hand, can run out of the Great Hut first and strike out in the direction agreed upon. Extreme haste is sometimes necessary, certainly always when someone disturbing the peace is to be caught.

X 881 625 They run one behind the other about two to three meters apart in a row and grasp the long strap with the right hand while they carry the dancing sticks in the left hand. As soon as they are close enough to the candidate or the mischief-maker, the first in the row throws the noose over his head while the other helpers surround him until he is bound. Now they drag him to the Great Hut, whether or not he is willing. They also use this ū́keš̆a to implant some wholesome fear in a stubborn, disobedient uš̆wā́ala. If the first and second warnings do not suffice and even a threat has no effect, the guard's assistants grab the rebel, wrap the

2: Cooper E-4 (no date) 1946 SH6 Yahgan SH6

white, war and ritual; black, mourning. Red symbolized peace. Designs were very simple, confined to lines, dots, and, less commonly, circles.

Ornaments.—Personal adornments were: necklaces, of sections of bird leg bones strung on braided sinew, of strung punched shells (*Photinula violacea*), or of frapped hanks of braided sinew, often colored red; bone or shell pendants, sometimes attached to the necklaces; and wristlets and anklets of sinew and hide. Feather diadems and bird-skin, feather, or down-ornamented fillets or forehead caps were also used.

TRANSPORTATION

Canoes.—Travel by the *Yahgan* was almost entirely by water. Their earlier sole form of watercraft was the built-up bark canoe, of a crescent or gondola shape that characterizes other craft well up the west coast of South America to Perú; the plank boat, the *Araucanian* dugout, the seal-hide float, and the double-ended reed balsa were absent (Lothrop, 1932 a, pp. 253–54).

The *Yahgan* canoe (pls. 34, 35) was made of three strips of beech bark, one-half inch to more than an inch (1.2 to 2.5 cm.) thick, which ordinarily formed the bottom and two sides respectively. Average length was about 15 feet (5 m.), with a range from about 12 to 20 feet (4 to 7 m.); gunwale to gunwale width in center, about 3 feet (1 m.); depth in center, about 2 feet (0.6 m.). The bark, taken only from the evergreen beech (*Nothofagus betuloides*), was stripped off in the spring, when the sap was running. In removing the bark from the tree, the natives used a bone chisel or mussel-shell knife to cut it and a bone barking tool to strip it, and in ascending the tree held themselves thereto with a strong rawhide thong. After smoothing the bark on both sides with a small chisel, they cut it into three cigar-shaped pieces. These pieces were then sewn together with whalebone or with shreddings of warmed saplings, the seams being wadded with the stringy seams of wild celery grass or with moss mixed with mud. The gunwales were next lashed on. The ribs, of split Winter's bark, were then fitted in and locked in place under the gunwales. The thwarts, usually five or six, of hardwood, were inserted and lashed to the gunwale.

The fireplace was set amidships. The paddle was in one piece with a long lanceolate blade and short round-section handle without crosspiece or other grip. The *Yahgan* canoe leaked much; the cylindrical bailers (pl. 33, *e*) were usually of bark or sealskin. Sealskin thongs and braided grass ropes were used as mooring lines. The construction and repair of the canoe were the man's task; but its management, including paddling and mooring off shore in a kelp bed, were the woman's. In a sense, she was mistress of the canoe, with its hearth and ever-lighted fire. In a favorable wind a crude sail, made of a sealskin or

2: Cooper E-4 (no date) 1946 SH6 Yahgan SH6

of several skins sewn together, was sometimes set up—a practice whose origin, native or European, is uncertain. (For details on manufacture and use of canoe, cf.: Lothrop, 1928, pp. 143–145; 1932 a, pp. 251–253; Gusinde, 1937, pp. 438–457.)

After about 1880 the *Yahgan* began to give up their traditional bark canoes, and to adopt the dugout. Still later, prior to Lothrop's visit in 1924–25, the dugout had been entirely superseded by the dory, of European type and origin.

The *Yahgan* never adopted the plank boat from their *Alacaluf* neighbors and never used rafts or skin-covered watercraft, so far as our records reveal.

MANUFACTURES

Pottery, weaving, and metallurgy were entirely absent; no traces of pottery have been discovered archeologically in *Yahgan* territory.

String-making and sewing.—Plant fibers, plain, shredded, or braided, were used in basket making, canoe sewing, and for mooring lines, respectively; braided whale sinew, for necklaces, fishing lines, and tool and weapon lashings; braided guanaco sinew, for bowstrings; whalebone, in sewing canoes and for bird snares and fishline nooses; seal-hide thongs, for tool and weapon lashings, harpoon lines, basket handles, mooring lines, and bowstrings. Awls were made of bone and wood, unhafted. The drill was lacking.

Basketry.—Four techniques in basket making were in use: (1) Simple half-hitch coiled, the commonest type (fig. 13, *top*); (2) twisted half-hitch coiled, rarer (fig. 13, *center*); (3) knotted half-hitch coiled, not common (fig. 13, *bottom*); (4) a sort of wrapped type. The first three were of excellent craftsmanship; the last, very crudely woven, and used only as a dip net for catching very small fish. The material for all four was a rush (*Juncus magellanicus*). The coiled baskets were more or less oblong-spheroid in shape, and had a carrying handle of thong or plaited rush (pl. 33, *c*).

Skin dressing.—No process of dressing proper is reported. Seal-skins were stretched on the ground, covered with grass and moss, and left so for a while, to help dehair them. Drying frames were apparently used. The scraper consisted of a mussel shell lashed to a cylindrical stone haft. The *Yahgan* made thongs flexible by drawing them through their teeth or by chewing them.

Stoneworking.—Little use of worked stone was made except for arrowheads and, rarely, scrapers. The workmanship was crude. Archeologically, there are some traces of stone pecking and polishing (Lothrop, 1928, p. 203; cf. Bird, 1938).

Containers.—Cylindrical buckets (pl. 33, *e*), of *Nothofagus betuloides* bark, for carrying and holding drinking water and for bailing, were made by the woman, with the use of a barking tool dif-

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

tangular piece was cut for the sides and a circular piece for the bottom of the bucket. Narrow strips of whalebone were then scraped thin and pliable, and the bottom and sides were sewn tightly together (fig. 56, *b*). Around the inside of the lip a strip

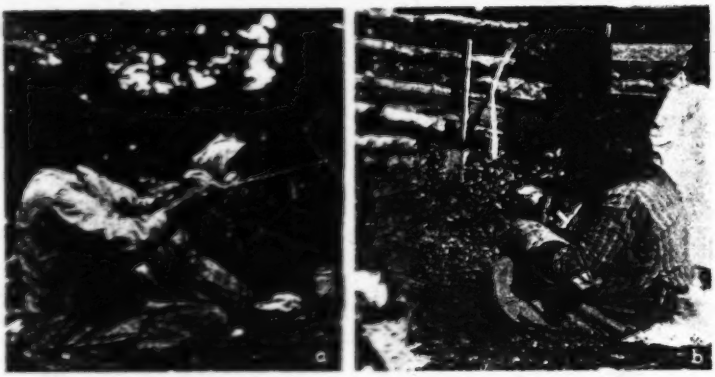

FIG. 56.—Yahgan women. *a*, Rope-making; *b*, Making a bark bucket.

of wood—*leña dura*, Winter's bark, or barberry—was introduced to give additional strength and to prevent the bark from splitting. Finally a hide thong was attached to serve as a handle, and the whole outside was painted red.

In general the Yahgan buckets are taller in proportion to their width than those of the Alacaluf. The Alacaluf seem to have been better craftsmen than the Yahgan, hence their buckets are usually more neatly finished.

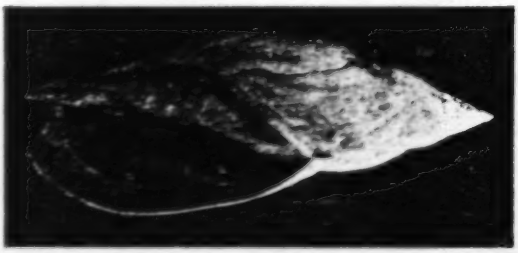

FIG. 57.—Yahgan shell cup. Length, 6¼ in. (14/2372)

8. CUP.—A Yahgan refinement over the Ona is the use of a shell cup (*auflán*). As seen in fig. 57, this is nothing more elaborate than a simple shell, its shape in no way modified. Such a receptacle could be used to dip water from a bark bucket, but would have been of little service in removing water from the Ona skin water-bag.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

PADDLES

The old-fashioned paddle (*ápi*) had a long pointed blade and a short rounded handle (fig. 75). The blade was diamond-shape in

FIG. 75.—Yahgan paddle. (After Hyades and Deniker.)

section, so there was a tent-like ridge centrally down each side. Today most of the blades have rounded tips, a shape which the Yahgan may well have adopted from the Alacaluf.

The women, who were the paddlers, often joined their men folk in fighting, using their paddles with deadly effect.

MOORING ROPES

Canoes were moored either with a seal-skin thong (*wurrsh*) as shown in fig. 76, or more commonly with a braided grass rope (*shukamí*) such as is seen in fig. 77. The process of braiding the rope is illustrated in fig. 56.

FIG. 76.—Yahgan seal-hide thong. Diameter of coil, 8 in. (14/2347)

CANOE BAILER

As all the Yahgan canoes leaked more or less, some kind of a bailer was imperative to keep them afloat. For this purpose a bark bucket like the water-bucket, but not so tall, normally was used (fig. 78). The writer has seen small seal-skin buckets said to have been used for this purpose.

CARE AND MANAGEMENT OF THE CANOE

The canoe was paddled by the women, who sat in the stern, while the men crouched in the bow to cast the spears. When paddling, owing to the short handle, one hand was under water.

3: Lothrop E-5 (1924-1925) 1928
SH6 Yahgan SH6

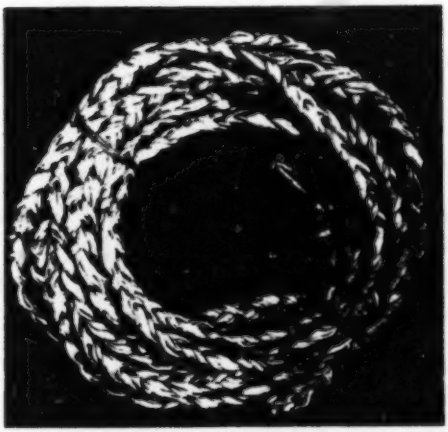

FIG. 77.—Yahgan grass rope. Diameter of coil, 5¼ in. (14/2349)

As a result of the exercise, the women were very strongly developed above the waist, but poorly developed in the legs.

When it was desired to make a landing the canoe was paddled in to the beach, bow-on, and the man of the family and the children stepped ashore. The wife then paddled the canoe out to a piece of kelp, moored it, and swam ashore. As a result all the women were able to swim, while few of the men could do so.

The canoe was kept in the water habitually, because hauling it up on the beach was difficult owing to the fragility of the bark. When it was necessary to make repairs, the beach was carpeted with wet kelp to make a soft and slippery surface over which the canoe could be dragged with ease. The dugout canoes, however, were a different proposition, so for them runways were made by removing the stones (pl. XI). Stakes were driven at the head of the runways to which the canoes were tied. Campsites used habitually since the invention of the dugout may be distinguished by the presence of such runways.

FIG. 78.—Yahgan bark bailer. (After Hyades and Deniker.)

WEAPONS AND METHODS OF HUNTING

SPEARS

Yahgan weapons were the spear, club, sling, and bow. In their fashion of living, spears were almost as import-